

respectfully submits that Claims 9-30 comply with the requirements of 35 U.S.C. § 112. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

35 U.S.C. § 102(b) Rejection

Claims 1-8 were rejected under 35 U.S.C. § 102(b), as being anticipated by Klein, et al., U.S. Patent No. 2,657,396 ("the Klein '396 Patent"). The Applicant submits that new Claims 9-30 are not anticipated by the Klein '396 Patent, and are in condition for allowance. In particular, as discussed in more detail below, the link threads described in independent Claims 9, 12, 18 and 24 are significantly different from the plurality of cords described in the Klein '396 Patent.

A reference must teach every element of a claim to anticipate that claim under 35 U.S.C. § 102(b). The Klein '396 Patent discloses an outer cover 12 and an inner liner 14 where a space 16, between the cover 12 and the liner 14, is maintained by a plurality of **vertically** extending cords 18. See the Klein '396 Patent, col. 2, lines 5-17. On the other hand, Claims 9, 12, 18 and 24 of the present invention, requires the use of link threads extending generally **cross-wise** (perpendicular) to the layers of woven materials in order to maintain space between the layers of hydrophobic and hydrophilic woven materials. The Klein '396 Patent does not disclose cords or link threads extending generally cross-wise, and therefore, does not anticipate independent Claims 9, 12, 18 or 24 under 35 U.S.C. § 102(b).

In addition, the link threads of the present invention have other significant structural differences from the Klein '396 Patent. The present invention requires the use of link threads extending generally cross-wise (perpendicular) to the layers of woven materials in order to maintain space between the layers of hydrophobic and hydrophilic woven materials. The tensile strength of the link threads prevent compression in the direction perpendicular to the woven materials without the need of additional structure. Given their bending modulus and density, the link threads provide the necessary strength to prevent compression, thus making it possible to maintain a circulation of air within the three-dimensional composite textile material. See Specification, p. 3, lines 10-30.

The use of link threads without additional structure to maintain space between the woven materials also simplifies the manufacture of the three-dimensional material according to the present invention by allowing the material to be woven or knitted in one step. The Klein '396 Patent, on the other hand, requires the use of cords and threads to maintain a space between the outer and inner layers. The Klein '396 Patent discloses that the thickness of the vertical cords 18 is what maintains the space 16 between the cover 12 and the liner 14. *See* the Klein '396 Patent, col. 2, lines 10-17. The Klein '396 Patent also inherently discloses that the cover 12 and the liner 14 are first made independently, and thereafter, the vertically extending cords 18 are then sewn to the liner 14 by horizontal stitching 20 in a separate manufacturing step. *Id.* The purpose of the horizontal stitching 20 is to hold the vertically extending cords in place; the stitching 20 does not help to maintain space between the layers of material as the link threads do in the present invention. *Id.*

Furthermore, the link threads of the present invention not only provide strength against compression of the layers of woven material, but also absorb liquid sweat, providing a function which enhances the effectiveness of the ventilation. *See* Specification, p. 3, lines 33-34. On the other hand, there is no such teaching for the cords disclosed in the Klein '396 Patent. The cords sole purpose are to maintain space. *See* the Klein '396 Patent, col. 2, lines 3-17.

In support of the § 102(b) rejection, the Examiner also notes that the outer layer and the inner layer of the Klein '396 Patent are joined by stitching (col. 2, lines 18-34) in an attempt to analogize the stitching to the links threads of the present invention. However, the stitching 22 of the Klein '396 Patent is not equivalent to the link threads of the present invention. In the Klein '396 Patent, the stitching 22 which extends from the collar 24 to the waistline 26, creates a seam which divides the trunk portion 28 into two symmetrical areas. Stitching 22 is not intended to, nor does it, maintain space between the layers of fabric. Rather, it joins the fabrics together along the seam. In comparison, the link threads of the present invention keep the layers spaced from each other and prevent the layers of woven material from coming in contact with each other.

Based upon the foregoing remarks, it is evident that the cross-wise extending link threads of the present invention which maintain space between the layers of woven material are not disclosed by the Klein '396 Patent, and therefore, independent Claims 9, 12, 18 or 24 are not anticipated under 35 U.S.C. § 102(b). Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

35 U.S.C. § 103(a) Rejection

Claims 1-8 were rejected under 35 U.S.C. § 103(a), as being unpatentable over Schwartz, U.S. Patent No. 3,536,576 ("the Schwartz '576 Patent"). The Applicant respectfully submits that new Claims 9-30 are not rendered obvious by the Schwartz '576 Patent, and thus are in condition for allowance.

The Schwartz '576 Patent discloses an automatic sealant system for a space suit having an outer wall 11, an inner wall 12, and a number of packages 14 in an overlapping pattern between the double walls 11 and 12 containing filler material 22. See the Schwartz '576 Patent, Figs. 3-5. The Examiner notes that the Schwartz '576 Patent "differs from the claimed invention because it is silent about the circulation of air in the intermediate zone." Based on the foregoing, the Examiner concludes that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the intermediate layer of Schwartz so as to circulate air . . ." As will be seen below, the Schwartz '576 Patent does not teach, suggest or provide any motivation to modify the intermediate layer to produce the claimed invention. Indeed, the Schwartz '576 Patent would be rendered inoperable for its intended purpose if the proposed modification was made.

If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP 2143.01, p. 2100-12. The purpose of the Schwartz '576 Patent is to create a self sealing space suit . If the intermediate layer of the prior art space suit was modified to permit the circulation of air, it would be inoperable for its intended purpose because there would be no filler

material available to seal holes made in the outer wall which prevents loss of internal pressurization in the space suit. Since the suggested modification would not allow the outer layer of the space suit to be self sealing, it is respectfully submitted that there is no suggestion or motivation to make the proposed modification.

Moreover, a novel aspect of the present invention is the use of link threads extending generally cross-wise to the layers of woven materials to maintain space between the layers. The Schwartz '576 Patent does not teach or suggest the use of link threads in the intermediate layer. For this additional reason, independent Claims 9, 12, 18, or 24 are not rendered obvious by the Schwartz '576 Patent. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the above, it is respectfully submitted that the new Claims 9-30 patentably distinguish over the Examiner's cited references. As the Applicant believes that the Application overcomes or traverses each of the Examiner's objections, early allowance and issuance is, accordingly, respectfully solicited.

PETITION FOR TWO MONTH EXTENSION OF TIME

Applicant hereby petitions for a two-month extension of time extending the period for a response to December 5, 2001. Enclosed is a check for \$200.00 to cover the two-month extension of time fee for a small entity. If any other extensions of time are required to preserve the pendency of this Application, such extension is hereby requested.

CHARGE DEPOSIT ACCOUNT

Please charge any outstanding amount or credit any overpayment to
Deposit Account of the undersigned attorneys, Account No. 01-1785.

Respectfully submitted,

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